

19970815.qrp v00_n819.qrs.970815

>From ???@??? Fri Aug 15 22:40:05 1997
Date: Fri, 15 Aug 1997 19:03:08 EDT
Subject: QRP-L digest 819
Message-Id: <97Aug15.190409edt.35310-57826+197@fidoii.cc.Lehigh.EDU>

QRP-L Digest 819

Topics covered in this issue include:

- 1) [24903] OMNI VI crystal oven stability
by Clark Savage Turner WA3JPG <turner@safety.ics.uci.edu>
- 2) [24904] Re: CW operating procedures (more)
by Paul Erickson <paul1@wizard.ucs.sfu.ca>
- 3) [24905] WTB: KENT straight key
by Steven Weber <kd1jv@moose.ncia.net>
- 4) [24906] Onsite
by adams@chuck.dallas.sgi.com (Chuck Adams)
- 5) [24907] Re: K5F0/7
by Conway Yee <cyee@bidmc.harvard.edu>
- 6) [24908] Favorite antenna book
by Bob Tellefsen-CNSE97 <Bob_Tellefsen-CNSE97@email.mot.com>
- 7) [24909] Re: CW operating procedures (more)
by Jim Glover <psykey@okcforum.org>
- 8) [24910] PA3ASC code
by adams@chuck.dallas.sgi.com (Chuck Adams)
- 9) [24911] Re: EA-QRP CLUB Website
by "Marshall Emm" <mgemm@mtechnologies.com>
- 10) [24912] Re: K5F0/7
by w4bws@juno.com (Donald E Sanders)
- 11) [24913] International Call Sign Series
by n4so@juno.com (charles k brown)
- 12) [24914] Re: [TenTec] OMNI VI crystal oven stability
by Clark Savage Turner WA3JPG <turner@safety.ics.uci.edu>
- 13) [24915] RE: learning CW operating procedures
by ke3fl@juno.com (Philip Karras)
- 14) [24916] longwave info
by af852@rgfn.epcc.Edu (William R Colbert)
- 15) [24917] circuits?
by Bigbob97@aol.com
- 16) [24918] Need Manual for TenTec Century 21
by Gary M - W2UX <MAIL4GARY@worldnet.att.net>
- 17) [24919] Re: QRP-L Command Summary
by Steve Hideg <Steve.Hideg.1@nd.edu>
- 18) [24920] Re: 38 Special filter info
by "Jim Kortge, K8IQY" <jokortge@mci2000.com>
- 19) [24921] Fer Sale

- by n1tgz@juno.com (Gregory P Fox)
- 20) [24922] Huntsville (AL) Hamfest
by Ed Tanton <n4xy@bellsouth.net>
- 21) [24923] Heathkit DX40
by "Earl W. Murphy" <aa385@gpfn.sk.ca>
- 22) [24924] Cheap RF Attenuators
by mschettl@pacbell.net
- 23) [24925] [ANNOUNCE] BUBBA Summer QRP Sprint!
by Joe Gervais <vole@primenet.com>
- 24) [24926] ZM-1's
by ROYGREGSON@aol.com
- 25) [24927] : [CW] from The ARRL Letter, Vol 16, No 32
by k4wz@juno.com (RON L TODD)
- 26) [24928] Re: K5F0/7
by Michael <MichaelN@cycat.com>
- 27) [24929] Re: K5F0/7
by Conway Yee <cyee@bidmc.harvard.edu>
- 28) [24930] Re: 1750 meters--VLF QRP band!
by pthomson@bruderhof.com
- 29) [24931] Re: 38 Special filter info
by Ed Pacyna <pacyna@auratek.com>
- 30) [24932] Antenna troubleshooting help needed
by JFKluender@aol.com
- 31) [24933] Re: longwave info
by Vincent Ferme <an327@freenet.toronto.on.ca>
- 32) [24934] 1750 Meters and VLF
by Jerry Parker <jparker@fix.net>
- 33) [24935] Re:K5F0 /7
by Brian Cieslak <brianc@ams-i.com>
- 34) [24936] Anyone built Dan's QRP Tuner?
by Mike AB7RU <mparkes@worldnet.att.net>
- 35) [24937] Re: K5F0/7
by Zack Lau <zlau@arrl.org>
- 36) [24938] Re: Antenna troubleshooting help needed
by SEAB&SHARON LYON <SSLYON@worldnet.att.net>
- 37) [24939] RE: Anyone built Dan's QRP Tuner?
by "Pat A. Taber" <pat@vtpo1.genrad.com>
- 38) [24940] 38 spl 5W mod oscillating?
by Paul Cereste <cereste@myapc.com>
- 39) [24941] Re: CW operating procedures (more)
by "j.w. thornton" <dub@oklahoma.net>
- 40) [24942] Re: CW operating procedures (more)
by adams@chuck.dallas.sgi.com (Chuck Adams)
- 41) [24943] Flight of Bumblebee #42
by w7rfm@juno.com (John E Hirsch)
- 42) [24944] RE: CW operating procedures (more)
by "Pat A. Taber" <pat@vtpo1.genrad.com>
- 43) [24945] Re: CW operating procedures (more)

- by Monte Stark <ku7y@sage.dri.edu>
- 44) [24946] 50/40/30 Louisiana Tues Night
by "Brian L. Lewis" <76500.1621@CompuServe.COM>
- 45) [24947] xtal modelling, 38s
by Glen Leinweber <leinwebe@mcmail.CIS.McMaster.CA>
- 46) [24948] Key Images
by "Marshall Emm" <mgemm@mtechnologies.com>
- 47) [24949] CW Operating Procedures
by Bob Hightower <ki7mn@dancris.com>
- 48) [24950] Re: Flight of Bumblebee #42
by Ed Loranger <we6w@qsl.net>
- 49) [24951] Bright LED and a use
by Larry Trullinger <kb0emb@swbell.net>
- 50) [24952] W1AW Receiver
by Ed Loranger <we6w@qsl.net>
- 51) [24953] Lenk's "Handbook of Simplified Solid-State Circuit Design"
by Chris Trask <ctrask@primenet.com>
- 52) [24954] Re: 38 spl 5W mod oscillating?
by gsurrency@juno.com (Gary L L Surrency)
- 53) [24955] Book:RF Power Design Techniques
by Ed Loranger <we6w@qsl.net>
- 54) [24956] Re: 38 Special filter info
by "Jim Kortge, K8IQY" <jokortge@mci2000.com>

Date: Thu, 14 Aug 1997 15:34:59 -0700
From: Clark Savage Turner WA3JPG <turner@safety.ics.uci.edu>
To: tentec@contesting.com
Cc: qrp-l@Lehigh.EDU
Subject: [24903] OMNI VI crystal oven stability
Message-ID: <19836.871598099@safety.ics.uci.edu>

I took some data from my master oscillator. I waited 3 minutes for the oven to settle down before taking measurements. I set the trimmer cap to a reference frequency of 10.00001 and went from there. I used the Startek frequency counter with 10 Hz resolution.

Began at 20:30 and measured 10.00001

20:40	10.00002
20:50	10.00003
21:20	10.00004
21:58	10.00005
22:22	10.00006

There are some points where I observed flutter where the freq counter was transitioning, so these times are not really exact, and only give 10 Hz resolution. However, there is a definite trend :-). Would

you all say that this is not acceptable for the Ten Tec OMNI VI master oscillator crystal oven? Should I go out and fork over the \$50 for a new one?

I will check on my BFO next for good measure, it has been suggested that problems can reside there also. I will check the trimmers in different modes for alignment, and watch some of them to see if they move much.

Thanks for all the comments and suggestions.

Clark
WA3JPG

Date: Thu, 14 Aug 97 15:45:28 PDT
From: Paul Erickson <paul1@wizard.ucs.sfu.ca>
To: ebjr@worldnet.att.net
Cc: qrp-1@Lehigh.EDU (qrp)
Subject: [24904] Re: CW operating procedures (more)
Message-ID: <9708142245.AA23645@wizard.ucs.sfu.ca>

Hi Sandy,

>
> Hello gang,
>
> As a long time amateur and QRPer (at times), I find most of the
> group has fairly
> decent operating practices. I do have one BIG gripe:
> I call : CQ CQ CQ DE W5TVW W5TVW W5TVW K
> And someone one or near the frequency sends: WA2ABC.....
> Is he calling me? Is he testing? Does he want my frequency? Certainly
> this IS NOT a DX station pileup! How do I know he is calling me? I repeat the
> CQ call again, only for him to just send WA2ABC.... (Again!)
> Moral: When calling a station, PLEASE send his call at least twice
> DE your call.

I'm afraid I have to strongly disagree. In that same situation, I would send WA2ABC de ve7cqk and see if he/she comes back to me. In my view, the two by two should be the norm for calling cq, three by three is ok, but I feel that I would be spending too much time talking and not enough listening.

cheers, Paul
ve7cqk
email: paul1@wizard.ucs.sfu.ca

>

Date: Thu, 14 Aug 1997 18:13:10
From: Steven Weber <kd1jv@moose.ncia.net>
To: qrp-l@Lehigh.EDU
Subject: [24905] WTB: KENT straight key
Message-ID: <3.0.1.16.19970814181310.2dffe1e0@mailhost.ncia.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Howdy Brass Pounders,

Anyone out there have a KENT straight key they would be willing to part with? Can't imagine why you would, but can't hurt in asking....

I just sold my KENT dual paddle, cuz I just can't get the hang of a keyer. Knew I should have gotten the key instead, but some how I thought having a top notch paddle would help.

My J38 is getting real tired and needs to be retired to the shelf....

73,

Steve, KD1JV....In the White Mountains of New Hampshire

"Melt Solder"

Date: Thu, 14 Aug 1997 23:10:30 +0100
From: adams@chuck.dallas.sgi.com (Chuck Adams)
To: qrp-l@Lehigh.EDU
Subject: [24906] Onsite
Message-ID: <199708142210.XAA21549@chuck.dallas.sgi.com>

Make onsite onsite in last message. Hey, Mark Twain said he didn't like anyone that had a narrow mind and could only spell a word one way.

:-) ;-)

Chuck Adams K5FO CP-60 adams@sgi.com
<http://reality.sgi.com/adams/index.html>
K5FO's online Morse Code course --- see the home page
WIMPS: Qs=058 30m=53 17m=5 12m=0 States=27/05/00 DX=04/00/00 QSLs=025

Date: Thu, 14 Aug 1997 19:15:30 EDT
From: Conway Yee <cyee@bidmc.harvard.edu>
To: <w4bws@juno.com>, <qrp-1@Lehigh.EDU>
Subject: [24907] Re: K5FO/7
Message-ID: <08141997191530.3N122T@email.bidmc.harvard.edu>

Text of message from w4bws@juno.com, 14 Aug 1997, 11:06 AM
> We chose the Molex 2 pin, 20 amp connectors available at Radio Shack

Might I ask the rationale for the decision?

One would suppose:

Pluses:

- 1) Easy availability at Radio Shack
- 2) Inexpensive.

But...

Minuses:

- 1) Fails to conform to the standard proposed by ARRL a few years back which is a 4 pin Molex.
- 2) If I recall correctly, Radio Shack ratings are a bit liberal when compared to the manufacturer rating. On the 4 pin molexes that the ARRL suggested, I believe RS spec'ed a 10 Amp rating whereas Molex spec'ed about 8.

Conway Yee, N2JWQ

Date: Thu, 14 Aug 1997 16:12:00 -0500
From: Bob Tellefsen-CNSE97 <Bob_Tellefsen-CNSE97@email.mot.com>
To: rickl@loa.com (Receipt Notification Requested)
Cc: qrp-1@Lehigh.EDU
Subject: [24908] Favorite antenna book
Message-ID: <M2016901.001.xgsj0.1.970814234818Z.CC-MAIL*/OU=LMPCC4/OU=ILBB/PRMD=MOT/ADMD=MOT/C=US/@MHS>

Rick:

I like all of my antenna books, but in particular I enjoy the 5 volumes (at present) of the ARRL Antenna Compendium. I've used something out of each volume, and enjoy rereading all of them.

73, Bob N6WG

Date: Thu, 14 Aug 1997 18:16:45 +0000 (GMT)
From: Jim Glover <psykey@okcforum.org>
To: qrp-l@fidoii.CC.lehigh.EDU
Subject: [24909] Re: CW operating procedures (more)
Message-ID: <199708141816.SAA08645@okcforum.org>
Content-Type: text

E. V. Sandy Blaize, W5TVW remarked:

[snip]

> The sending of one's call once to answer another station is common
> in DX
> pileups, but shouldn't be used generally. It seems to be common among
> Novice operators on 10 meter SSB as well.

Perhaps part of the reason for this practice is that fact that Tech+'s have the same privileges novices do (so they hang out together on the 10M band...the only voice band for novices), and the Tech+'s are often accustomed to operating 2M FM, where it's a common practice to answer a general call (or transmit one, for that matter) in exactly that way--by simply announcing one's callsign.

> It would behoove the higher class
> ops and
> older timers to advise these stations that this is sloppy and confusing
> operating
> procedure.

I whole-heartedly agree. As someone who is currently learning CW operating procedures, I wish the old timers (not higher class ops, per se...I hold the Advanced class) were a lot more active in getting the word out about how things should be done on the air.

Perhaps part of the problem, is that we largely rely on "learning on the air" to bring people up to speed. From what I hear from old-timers, it was not unusual once upon a time in the amateur radio world, to learn most things about amateur radio by that method. In today's busier, more technological world, new hams often learn theory, code, and regulations more on their own, than used to be the case. By doing so,

they may miss out on learning some of the practices and procedures which prospective hams in days gone by often learned by exposure to them while learning from experienced hams about the hobby in general.

In any event, I'm sure there would be a remarkable improvement in the overall on-the-air operating standards, if experienced hams would make sure they do everything they can to spread the word about how it should be done, rather than dealing with the problem by simply avoiding contacts with operators whose non-standard procedures make them difficult to "read".

--Jim

Date: Thu, 14 Aug 1997 23:09:21 +0100
From: adams@chuck.dallas.sgi.com (Chuck Adams)
To: qrp-l@Lehigh.EDU
Subject: [24910] PA3ASC code
Message-ID: <199708142209.XAA21541@chuck.dallas.sgi.com>

Michael A. Perry, PA3ASC, asked that I place the BASIC source code from his talk at Dayton on the ftp sight.

REM Band-pass filter components computation
REM Michael A. Perry PA3ASC

You can get the code by sending an email to LISTSERV@LEHIGH.EDU and in the BODY of the message put

GET QRP-L/MISC COMPONNT.BAS

Of course you will need BASIC on your system in order to use this program. I will look at converting it to PASCAL and C later on this weekend.

FYI and Thanks Mike for sharing this

Lots of comments in his code, so you should be able to use it as is.

Placed on sight with the permission of the Copyright owner Michael A. Perry, PA3ASC.

Chuck Adams K5FO CP-60 adams@sgi.com
<http://reality.sgi.com/adams/index.html>
K5FO's online Morse Code course --- see the home page

WIMPS: Qs=058 30m=53 17m=5 12m=0 States=27/05/00 DX=04/00/00 QSLs=025

Date: Thu, 14 Aug 1997 17:00:47 +0000
From: "Marshall Emm" <mgemm@mtechnologies.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>, jalopezd@arrakis.es
Subject: [24911] Re: EA-QRP CLUB Website
Message-ID: <199708142301.RAA06710@bobcat.sni.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT

Nice Site!

I've linked to it from CQC's links page:
<http://www.mtechnologies.com/mthome/cqc.htm>

My Spanish is very rusty and can't find a dictionary--
please, English for "BAJA POTENCIA Y CACHARREO"

73
Marshall Emm
N1FN/VK5FN
n1fn@mtechnologies.com
<http://www.mtechnologies.com/mthome>
(303)752-3382
--

Date: Thu, 14 Aug 1997 21:06:01 EDT
From: w4bws@juno.com (Donald E Sanders)
To: cyee@bidmc.harvard.edu
Cc: w4bws@juno.com, qrp-1@Lehigh.EDU
Subject: [24912] Re: K5F0/7
Message-ID: <19970814.211452.13079.0.W4BWS@juno.com>

On Thu, 14 Aug 1997 19:15:30 EDT Conway Yee <cyee@bidmc.harvard.edu>
writes:
>Text of message from w4bws@juno.com, 14 Aug 1997, 11:06 AM
>> We chose the Molex 2 pin, 20 amp connectors available at Radio Shack
>

>Might I ask the rationale for the decision?

>

>One would suppose:

>Pluses:

>1) Easy availability at Radio Shack

>2) Inexpensive.

Yes on both accounts and easy to assemble, not too big, able to carry amperage with out excessive loss.

>But...

>Minuses:

>1) Fails to conform to the standard proposed by ARRL a few years back

> which is a 4 pin Molex.

Who in H-ll said they were the ones to set standards? I may be a life member but with the things they have screwed up since incentive licensing most hams dont take a lot they do seriously. They represent less than half of the licensed hams anyway. My feeling and many others in this area is they will sell us out to make a buck or keep their muckymucks in power. I will admit they have done a great job with their publications and I like that.

>2) If I recall correctly, Radio Shack ratings are a bit liberal when compared to the manufacturer rating. On the 4 pin molexes that the ARRL suggested, I believe RS spec'ed a 10 Amp rating whereas Molex spec'ed about 8.

>Conway Yee, N2JWQ

We have run 10 amps with out overheating or voltage drop on the small connectors and run 20 amps to the QRO rigs with big connectors.

Remember that manufacturers derate products, they don't spec them at the maximum if they are smart. (Probably because they know hams are going to use them).

BTW IMO: I'm glad we live in the great USA which allows us freedom of opinion and to operate ham radio (until they sell our frequencies).

DON w4bws@juno.com

Date: Thu, 14 Aug 1997 21:19:16 EDT

From: n4so@juno.com (charles k brown)

To: qrp-1@Lehigh.EDU

Subject: [24913] International Call Sign Series

Message-ID: <19970814.081653.7543.5.n4so@juno.com>

FU2MM

France

Theoretically a valid callsign for France.
See FAA-FZZ, Table of Allocation of Call Sign Series
Radio Amateurs World Atlas, Radio Amateur Callbook Inc.
Compare chapter 37, Operating Aids, p. 37-8, Table 11,
1995 ARRL Handbook.

Ken Brown, N4SO
QTH nr Mobile, AL/ EM50tk
qrp-l #622
n4so@juno.com

Date: Thu, 14 Aug 1997 17:51:13 -0700
From: Clark Savage Turner WA3JPG <turner@safety.ics.uci.edu>
To: Steve Ellington <n4lq@iglou.com>
Cc: tentec@contesting.com, qrp-l@Lehigh.EDU
Subject: [24914] Re: [TenTec] OMNI VI crystal oven stability
Message-ID: <21389.871606273@safety.ics.uci.edu>

> Do you keep the power supply turned on at all times inorder to keep that
> oven warm?

Can't do it, my OMNI is an original production run, the oven wasn't set
up to do that. I may rewire it after I settle this problem, hi hi.

> How about leaving the power on all night with the radio off and running
> this test again?

I could leave the radio on for a long time and see where it goes. That is
a good idea, after I check out the BFO for drift itself.

> I also wonder about the effects of voltage regulation on that oven.

Another good question. I will check that just for fun.

A good friend of mine who is a good engineer (and experienced very
similar problems with his early production OMNI VI) explains that
an oven oscillator should not move this much at all. I will go on
and dig into the BFO for my own info, but it looks like I will be
trying to carefully remove that oven for replacement....I am told
it is not so easy to remove! Wish me luck.

Clark
WA3JPG

Date: Thu, 14 Aug 1997 22:36:27 EDT
From: ke3fl@juno.com (Philip Karras)
To: psykey@okcforum.org, qrp-1@Lehigh.EDU
Subject: [24915] RE: learning CW operating procedures
Message-ID: <19970814.223659.4591.0.ke3fl@juno.com>

Jim:

What you're doing is what I did. When I started out I found ragchews on 80 meter Novice almost always. 40 meters was more difficult when I started, perhaps my speed had something to do with it, but now 40 m ragchews are no problem either (conditions permitting.)

DX can be found around the 7.03 MHz and below, and 3.53 MHz & below condx permitting. I'm not much into DXing so others will have to help you there but I get about 50-50 standard QSO & ragchew. It's easier to chew the rag if you both speak the same language.

73 & 72 de KE3FL
Phil

Date: Thu, 14 Aug 97 21:11:47 MDT
From: af852@rgfn.epcc.Edu (William R Colbert)
To: qrp-1@Lehigh.EDU, af852@rgfn.epcc.Edu
Subject: [24916] longwave info
Message-ID: <9708150311.AA10573@rgfn.epcc.Edu>

Someone was asking about the 1750 meter band. It is still listed as an experimental part 15 band. From what I read in various places, the lowfers are still running beacons, some communicating and info is available - tho I don't have anything up to date except the web site for the LongWave Club of America which has the info and assistance needed. Try <http://www.anarc.org/lwca/>

Also one of the pre-eminent lowfers - Ken cornell, W2IMB wrote much of the info about that band, also published a looseleaf bype oops type handbook with info on antennas, receiver equipment, transmitters, rules and regulations, became a SK within the past 2 or 3 months. However, I am sure the book should be available thru most of the dealers that also handle SWL materials or thru the LWCA. Another good web site is <http://www.anarc.org/naswa>

which is the web site for the North American Shortwave Association,
or <http://www.anarc.org/> which is the Association of North
American Radio Clubs - sort of an umbrella organization. Not
really qrp info, except for the 1750 stuff, but hope it helps
whomever was looking for the info.

73 Ray

--

Ray Colbert, W5XE
00TC 3618, SOWP 1064M
El Paso, Tx (Far West Texas)
(also: v31xe@dzn.com)

Date: Thu, 14 Aug 1997 20:49:31 -0400 (EDT)
From: Bigbob97@aol.com
To: QRP-L@Lehigh.EDU
Subject: [24917] circuits?
Message-ID: <970814204853_806736224@emout10.mail.aol.com>

Hello All !

Does anyone know of a site that lists "fun" or "gimmick" circuits ? Some
years ago I knew how to hook up a PNP - 100uf C - 100k R - .01 C - an audio
transformer and NE2 - which would blink for about three months on a carbon
zinc 9 volt battery. This is real good QRP drain as I recall the shelf life
of these batteries not being all that much longer - this was before we all
used alkalines. I would appreciate any references you folks may have
stumbled across while looking around. Thanks !

73,
Bob WB2DHK in Jersey City, NJ

Date: Thu, 14 Aug 1997 10:14:14
From: Gary M - W2UX <MAIL4GARY@worldnet.att.net>
To: qrp-l@Lehigh.EDU
Subject: [24918] Need Manual for TenTec Century 21
Message-ID: <3.0.1.16.19970814101414.361f1926@postoffice.worldnet.att.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hello Gang,
I am in need of a manual for a TenTec Century 21 that I just acquired.

Original or copy and I will pay for either. Thanks.

```
=====
73 / 72          QRP ARCI # 8911
Gary - W2UX      QRP-L # 593
Lexington, SC    CQC #413
(EX: WA2UAX)
CW is the REAL THING!      Use it or lose it.
=====
```

Date: Thu, 14 Aug 1997 19:33:58 -0500
From: Steve Hideg <Steve.Hideg.1@nd.edu>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [24919] Re: QRP-L Command Summary
Message-ID: <v03102803b01953f0ea0c@[129.74.35.26]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 11:00 PM +0100 8/14/97, Chuck Adams wrote:

>OK Gang,

>

>Here is a short summary of some useful commands. Print this out and
>save it. Save this to disk and periodically browse and see if there
>is something of use. Make into a plastic card to carry around with
>you.

You can issue most of these commands on the WorldWide Web at the following URL:

<<http://qrp.cc.nd.edu/qrp-l/clubinfo.html>>

Steve Hideg, N8HSC/9 QRP-L #136
Check out the Internet QRP Club's site on the WorldWide Web:
 <<http://qrp.cc.nd.edu/QRP-L/>>

Date: Thu, 14 Aug 1997 20:15:07 -0400
From: "Jim Kortge, K8IQY" <jokortge@mci2000.com>
To: Paul Erickson <paul1@wizard.ucs.sfu.ca>
Cc: qrp-l@Lehigh.EDU

Subject: [24920] Re: 38 Special filter info
Message-ID: <3.0.1.16.19970814201507.2bdfe816@mail-cluster.pcy.mci.net>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii

At 07:19 AM 8/7/97 -0700, Paul Erickson, VE7CGK wrote:

>Hi Jim, XTALF.ZIP can be found at
ftp.oakland.edu/pub/hamradio/arrl/qst-binaries/xtalf.zip. It is a
spreadsheet designed to deal with the issues in the W7ZOI
>article on filter design. If it isn't asking too much, I would appreciate
>hearing the results of your characterizing the crystals as a check against
>my own measurements. It will be a cross check of my methodology and the test
>equipment I have built. Some day I may have enough experience to just
>build, sweep, and swap it as needed.

>

>cheers, Paul

>ve7cqk

>email: paul1@wizard.ucs.sfu.ca

Hi Paul...well I didn't get the 38S crystals measured over
the weekend, but I did it tonight for you. Here are the data:

Mouser 520-HCA1200-S (Used in 30 meter 38S filter)

Fo = 12.000000 MHz

-3dB BW = 1890 Hz

Rs = 24 Ohm

Q = 31,750

Cm = 1.74x10⁻¹⁴ Farad

Lm = 1.01x10⁻² Henry

Mouser 520-HCA403-S (Used in 17 meter 38S filter)

Fo = 4.032123 Hz

-3dB BW = 105 Hz

Rs = 20 Ohm

Q = 230,400

Cm = 8.56x10⁻¹⁵ Farad (Experimentally measured as 6.79x10⁻¹⁵ Farad)

Lm = 1.82x10⁻¹ Henry Experimentally measured as 2.29x10⁻¹ Henry)

So there you go. The 4.032 MHz crystals look much better than
the 12 MHz units. I'll go back and remeasure an original 12 MHz
38S crystal. My recollection was that it wasn't nearly as good
as the Mouser units.

I've posted these results to the QRP-L gang. I'm sure others are
interested in my measurements. Maybe someone can corroborate the
results.

72 and kind regards.....Jim

Jim Kortge, K8IQY (ex NU8N) | NorCal, QRP-L
jokortge@mci2000.com | __o H.F. bicycle mobile
Fenton, MI | _'\<, Mizuho 17/40 SSB
... .. (*)/(*)
NorCal 38S/30 Log - 34 States; 40 Countries - Running 3 watts
Most recent - Iowa Mauritius

NorCal 38S/17 Log - 3 States; 2 Countries - Running 2 watts
Most recent - New Jersey St. Martin

Date: Thu, 14 Aug 1997 20:15:12 EDT
From: n1tgz@juno.com (Gregory P Fox)
To: qrp-l@Lehigh.EDU
Subject: [24921] Fer Sale
Message-ID: <19970814.201440.4671.0.n1tgz@juno.com>

Hi Gang, Anyone out there interested in a Radio Shack HTX 100 10 meter
SSB/CW rig? 25 watts and 5 watt setting, works great.. \$125 including
shipping, or offer and or trade fer 6meter or 440 stuff..

Tnx 72 Greg N1TGZz # 8444 NEQRP #322
Bushnell FL>>

Date: Fri, 15 Aug 1997 00:25:09 -0400
From: Ed Tanton <n4xy@bellsouth.net>
To: boatanchors@theporch.com
Cc: qrp-l@Lehigh.EDU
Subject: [24922] Huntsville (AL) Hamfest
Message-ID: <3.0.1.32.19970815002509.00a64370@mail.atl.bellsouth.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hi folks... I will be at the Huntsville Hamfest this weekend and would like
to meet anybody who wants to chat about my two favorite subjects: QRP and
Boat Anchors. I'll be staying at the Hilton, registered in my name. Give me
a buzz if you get the chance. Anyone from either group with a table, pls
email me before lunch tomorrow and I'll look for it. Thanks!

72/73

Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

A recent post to QRP-L reported on non-inductive power resistors at RF. This got me thinking about building something I have needed on occasion-- an attenuator suitable for QRP power levels. The author mentioned the Radio Shack metal-oxide resistors as a cheap and easily obtainable source. However, R/S only stocks 10, 100, and 1K ohm, 1 Watt values. Still, at 2 for 49 cents, it was worth checking out.

A look at the ARRL HB attenuator chart was intriguing. The calculated values for a 4 dB, an 8 dB, and a 14 dB T-pad were very close to those one can easily make from the R/S parts, using simple series-parallel combinations. I built up an 8 dB T-attenuator using two of the 10 ohm resistors for each series element, and two of the 100 ohm resistors in parallel for the shunt element. This yields 20 ohms for each series element, and 50 ohms for the shunt element. A little math shows the impedance looking into this pad is about 49.2 ohms. Plenty close enough! The most dissipated by any resistor (assuming a 4.9 Watt input) was about 1 Watt. Not too bad.

I built one on a piece of copper-clad board and checked it out using an MFJ SWR analyzer. SWR is less than 1.1:1 up to about 11 MHz. It rises to about 1.2:1 at 20 MHz, and 1.25:1 at 30 MHz. (Keep those leads short!) I measured attenuation at 7.8 dB up to about 12 MHz, and 7.5 dB at 30 MHz. I haven't enclosed the board in anything yet--probably more PCB will do the job.

So what do I have for \$1.50 worth of R/S resistors? (OK, plus connectors of your choice).

A 7.5 dB attenuator capable of handling 4.9 Watts of intermittent duty, and good up thru HF. It will reduce a transmitter output from 4.9W to 870 mW. Add a second one for another 7.5 dB reduction, you're down to 155 mW. Much safer for feeding into a piece of test equipment.

Building a 3.6 dB T-attenuator takes only two of the 10 ohm resistors and a single 100 ohm. It should handle 3.5 Watts input. Input impedance should be about 47.5 ohms.

If someone has described such a device before, I apologize for the repeat. Just thought this might be of benefit to the community. Usual disclaimers.....

73
Mike WA6MER

Date: Thu, 14 Aug 1997 23:22:59 -0700 (MST)
From: Joe Gervais <vole@primenet.com>
To: qrp-1@Lehigh.EDU
Subject: [24925] [ANNOUNCE] BUBBA Summer QRP Sprint!
Message-ID: <199708150622.XAA23054@usr02.primenet.com>

(Skip to the bottom if you just want to see the rules...)

Howdy Folks,

rumble rumble

Ah, the heat. The malaise. The days drag on. The Dog Days
of Summer. Woof.

rumble rumble

But relief is in sight - September is just around the corner,
with cooler wx following closely behind. Wahoo!

rumble rumble

So the ScQRPions were sitting around trying to figure out how
to kick summer out the door. Soon everyone was blurting stuff
out, and when the dust had settled we had an idea. (No, really!)
A contest where the heat would do you some good. An Anti-FYBO.

RUMBLE RUMBLE RUMBLE RUMBLE

(The earth trembles and shakes as hundreds of majestic BUBBAs
stampede across the plains through the searing heat, a huge
cloud of dust rising up behind them!)

A BUBBA Summer QRP Sprint!!!

(BUBBA = "Burn Ur Big B_____ Away") Say goodbye to summer doldrums
by putting that miserable heat to good use!

There's an Outdoor category to coerce folks to get out on a nice
summer day, and an Indoor category for folks who get stuck with
crummy wx or want to watch a game on TV.

There are a few similarities to FYBO. You send the temperature at
the OPERATOR'S POSITION. Outdoor ops will use this to determine
their Heat Index for final scoring ('cause it ain't always a dry
heat, folks!). Indoor ops will just use their straight operating
temperature when computing their score.

We picked Aug. 31 because as best we can tell, nothing else is going on! No contests, no QRM, no hassles, just good clean BUBBA fun. What the heck else are ya gonna do?!? :-)

That's it! Short notice, so we expect this'll mostly be a contest of QRP-L critters this year. But getting the word out to 2000 subscribers should be enough to get BUBBA started. :)

(The White House would not comment on using photos of a sweaty jogging Prez for BUBBA publicity....)

Please join in on the fun if you can! Full rules are included below. Remember - "If it ain't fun, you ain't doin' it right!"

Only two weeks to BUBBA!!! This is not a drill! I repeat, this is not a drill!

Cheers de AB7TT,

-Joe, vole@primenet.com, AZ ScQRPions (Phoenix)

"It's hot! Africa hot! Tarzan couldn't take this kinda hot!" -Biloxi Blues

===== The BUBBA* Summer QRP Sprint =====

(sponsored by the AZ ScQRPions)

*"Burn Ur Big B_____ Away"

When: Sun, Aug 31st, 1900Z-2300Z

Where: HF bands (no WARC)

What: CW, QRP (5w or less) only

How:

Categories: Indoor, Outdoor.

Work stations once per band.

Each SPC (State/Province/Country) counts once overall.

Exchange RST, SPC, Name, and Temp(F) at OPERATOR'S POSITION.

Score 1 pt per QSO.

Multipliers:

Power: 1-5w = x1, Less than 1w = x2.

Heat:

- Indoor ops use highest operating temp(F) at OP'S POSITION.
- Outdoor ops use Heat Index rating (See chart below).

Final Score = QSO pts x SPCs x Heat x Power.

Why:

Because it's either BUBBA or mow the lawn in the blazing heat!

Send logs to vole@primenet.com or Joe Gervais, POB 1822, Goodyear, AZ 85338. Include callsign, operator, power, location, and highest operating temp (outdoor ops also include relative humidity). Deadline is Sept.19 (don't want to interfere with QRP Afield planning!).

----- HEAT INDEX CHART (for Outdoor ops) -----

<<http://www.koin.com/weather/heatindx.htm>>

		Relative Humidity (%)																
		15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	

	110	108	112	117	123	130	137	143	150									
	105	102	105	109	113	118	123	129	135	142	149							
T	100	97	99	101	104	107	110	115	120	126	132	138	144					
E	95	91	93	94	96	98	101	104	107	110	114	119	124	130	136			
M	90	86	87	88	90	91	93	95	96	98	100	102	106	109	113	117	122	
P	85	81	82	83	84	85	86	87	88	89	90	91	93	95	97	99	102	
(F)	80	76	77	77	78	79	79	80	81	81	82	83	85	86	86	87	88	
	75	71	72	72	73	73	74	74	75	75	76	76	77	77	78	78	79	

Date: Fri, 15 Aug 1997 02:27:28 -0400 (EDT)
From: ROYGREGSON@aol.com
To: qrp-1@Lehigh.EDU
Subject: [24926] ZM-1's
Message-ID: <970815022727_1084532643@emout19.mail.aol.com>

ZM-1's all gone now. Last of the batch goes to K6AEC, W4ED, K0EVZ, VE3SUY, N4JS, VE3MMQ, AA5TA, K6PZB, N2TO, AND DON FAITH, Most wanted to know if any was left before sending check, so now you know ! Hope I counted right ! I'll get them ready to ship awaiting your letters. Priority mail still working !
Thanks guys, cul Roy

Date: Fri, 15 Aug 1997 06:42:21 edt
From: k4wz@juno.com (RON L TODD)
To: KS4TX@juno.com, N4QCP@juno.com, KE4KXQ@juno.com, KE4QMB@juno.com,

KS4CG@juno.com, FLEW45@earthlink.net, DCMORRIS@BELLSOUTH.NET, N5BI@juno.com,
pappyg@alltel.net, KE4QMA@juno.com, jtuttle@camden.tds.net, AK4I@juno.com,
KE4UTU@juno.com, TimFly50@aol.com, KE4LUZ@juno.com, N4MNA@juno.com,
Subject: [24927] : [CW] from The ARRL Letter, Vol 16, No 32
Message-ID: <19970815.065303.4519.0.K4WZ@juno.com>

CW RETURNS TO MARS NETS

CW, which was officially banned last fall from the Military Affiliate Radio

System, or MARS, has now been allowed back, at least on a limited basis. "It's a good thing, I think," allowed Lt Barbara Carter, acting chief of Navy-Marine Corps MARS, who said she's been fighting on behalf of CW enthusiasts protesting the order to cease CW activity as of October 1, 1996.

Permission to resume the use of CW on Department of Defense MARS frequencies

for everything but formal MARS message traffic was handed down at a joint service conference in early July. "They met us halfway," she said of the decision.

A message to all Navy and Marine Corps MARS members in July said that the

Department of Defense "has no objections for CW use on MARS frequencies but

only for unofficial use and practice. No emergency/official messages are authorized in CW." Carter confirmed her interpretation that MARS members may

use CW for code practice and informal communication "or just because they really enjoy using it."

Bob Stake1, KD1KV/NNN0TDU, of Falmouth, Maine--the assistant Region 1 MARS

director--said CW was being used on no fewer than one net a month in Northern New England. "We lost people" because of the CW prohibition, Stake1

said. Now that limited use of CW has been reinstated, "we are using it," he said.

In MARS Region 3, Navy MARS member Frank Thrash, W4DLZ, of Metairie, Louisiana, had high praise for Carter's efforts on behalf of CW. "This woman

really stuck her neck out," he said. "Our nets are working pretty much as before [the ban]."

Carter, who's not a ham but is interested in becoming licensed, confirmed that some MARS members quit when CW was prohibited. She said that when she took over as Navy-Marine MARS chief, the return of CW was among the first things she heard about. "All they were asking was for a small bit that most of them learned while serving [in the military]," she said.

Thrash is among those who believe CW is far from obsolete. "It's the ultimate weak-signal mode," he said.

```
<
>
< * * * * * THE CW REFLECTOR * * * * *
* >
__Subscribe      To: Majordomo@qsl.net with Body: subscribe cw <email
addr>
__Unsubscribe    To: Majordomo@qsl.net with Body: unsubscribe cw <email
addr>
__To post, send to  cw@qsl.net  please, CW issues only
__To contact list owner, email to owner-cw@qsl.net

----- End forwarded message -----
```

```
-----
Date: Fri, 15 Aug 1997 08:00:10 -0400
From: Michael <MichaelN@cycat.com>
To: qrp-l mailing list <qrp-l@Lehigh.EDU>
Subject: [24928] Re: K5F0/7
Message-ID: <33F444CA.5F6@cycat.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
```

I don't know about a few years back, but the 1997 ARRL Handbook lists the ARRL-Recommended 12-V Power Connector as the Molex 1545, 2 pin, 8 amp connector, with positive on the point side. This connector is available at RS as part #274-222.

This is directly from the 1997 Handbook page 22.6.

Where did/does the ARRL recommend a 4 pin molex??

michael N6CHV

> Minuses:

> 1) Fails to conform to the standard proposed by ARRL a few years back
> which is a 4 pin Molex.

Date: Fri, 15 Aug 1997 08:13:33 EDT
From: Conway Yee <cyee@bidmc.harvard.edu>
To: <MichaelN@cycat.com>, <qrp-1@Lehigh.EDU>
Subject: [24929] Re: K5F0/7
Message-ID: <08151997081333.3N1622T@email.bidmc.harvard.edu>

In a QST about 4 years ago, I believe, ARRL had a one-two page article recommending a 4 pin MOLEX as a low power connector for 12V devices. I haven't seen the 1997 handbook.

Conway Yee, N2JWQ

Date: Fri, 15 Aug 1997 08:14:39 -0400
From: pthomson@bruderhof.com
To: qrp-1@Lehigh.EDU ("Low Power Amateur Radio Discussion")
Subject: [24930] Re: 1750 meters--VLF QRP band!
Message-ID: <1542F4338100001F5CAB@mail.bruderhof.com>
MIME-Version: 1.0
Content-type: text/plain; charset="ISO-8859"
Content-disposition: inline
Content-transfer-encoding: 7bit

ccart@dns.vidtel.com wrote:

>There is an antenna + feedline restriction, 50' if I remember correctly.
>Of course that could be meters. And there is a good deal of activity in
>winter from what I've read. There are MCW schemes and some sort of
>synchronos TX that uses time refereces from network TV stations to (no pun

>intended) sync things up. I don't think there is any restriction, if you
>have the room, on RX antennas. The G-landers have a 73Khz band and are
>bound by ERP of 1? maybe 10? watts?

A few clarifications from a small-time Lowfer operator:

The antenna length limit is 15 meters, or about 50 feet. The power INPUT limit is 1 watt. This effectively limits your ERP to less than 10 mW under the best conditions. I get closer to 4 mW. Talk about QRPpp! The active season is from late fall through early spring - - when thunderstorms are far enough away for a quiet noise floor. Distances of over 1000 miles have been achieved, but 200-500 miles is more common.

The popular digital modes are coherent CW (precisely timed so it can be pulled out of the noise by a decoder, even when not audible) and BPSK, a similar timed coding scheme for computers.

The British allow Amateurs to use 73 KHz with an ERP of 1 watt. Boy, I wish we had a power limit like that! I could put out 250 times what I do now.

And finally, 1750m is technically LF, not VLF. VLF is 30 KHz and down, which is used by the Navy for sub comms...

Anyhow, 1750m is the ultimate QRP challenge. Give a listen this winter!

73/72/71 de KA2QPG (also beacon RI on 184.320 KHz Oct - May)
Pierre Thomson
FN21, Rifton, NY

Date: Fri, 15 Aug 1997 08:27:39 -0400
From: Ed Pacyna <pacyna@auratek.com>
To: jokortge@mci2000.com
Cc: qrp-1@Lehigh.EDU
Subject: [24931] Re: 38 Special filter info
Message-ID: <3.0.16.19970815082737.304f808a@dingle.auratek.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Having done these measurements many many times, the referenced 12MHz crystal is pretty sick.

While in general, cheap crystals >10Mhz will not have as good a Q compared to those <10MHz, a Q of 100,000 would be expected (and up to 200,000 quite possible).

73

Ed, W1AAZ

At 08:15 PM 8/14/97 -0400, you wrote:

```
>Mouser 520-HCA1200-S (Used in 30 meter 38S filter)
>Fo = 12.000000 MHz
>-3dB BW = 1890 Hz
>Rs = 24 Ohm
>Q = 31,750
>Cm = 1.74x10-14 Farad
>Lm = 1.01x10-2 Henry
>
>Mouser 520-HCA403-S (Used in 17 meter 38S filter)
>Fo = 4.032123 Hz
>-3dB BW = 105 Hz
>Rs = 20 Ohm
>Q = 230,400
>Cm = 8.56x10-15 Farad (Experimentally measured as 6.79x10-15 Farad)
>Lm = 1.82x10-1 Henry Experimentally measured as 2.29x10-1 Henry
```

Date: Fri, 15 Aug 1997 08:31:55 -0400 (EDT)
From: JFKluender@aol.com
To: qrp-1@Lehigh.EDU
Subject: [24932] Antenna troubleshooting help needed
Message-ID: <970815083154_688133621@emout05.mail.aol.com>

Fellow qrp-1'ers,

I just put up an 80 M horizontal loop, as described on numerous occasions by different people on this list. I was getting really excited about getting on the air, and then...

To all appearances, the thing looks fine. It is adequately supported at all four corners, albeit not as high as I would have liked, It is about 22' high at the corner I feed it, the SW corner; about 25' high at the SE and NE corners, and, temporarily, about 10' high at the NW corner (that corner has no trees or other good supports - yet :) In the SW corner, I run the two 14 guage 7x21 stranded copper wires parallel (on either side of) a painted green-treated 2x4 mast, composed on 2 12' 2x4's with a few feet of overlap in the middle, ginpoled to the shack. In other words, my painted (and, we hope, waterproof) wood mast is serving both as a mast, and as a ~4' spacer for my

feedline. A couple of feet off the ground, I run two zinc-plated steel rods through the building, and hook the wires up to them on the outside. On the inside, I run a length of 450' ladder-line to the tuner/radio from the other side of the feed-throughs.

Now that (I hope) you understand my loop - here is the problem: It just doesn't want to tune! I tried my MFJ 941D, and a friend's Vectronics 3kW roller-inductor tuner, and neither one could get a low SWR. If I touch just the center conductor of the 50 ohm coax (from the tuner to the radio) to the center conductor of the SO239 of my radio, I get lots of signals - so it's acting great as a rectangular long-wire. But as soon as it is hooked up "as a loop", i.e., with both "halves" of the antenna in contact with my radio, the signals drop. At first, I thought, "Wow, this is a REAL quiet antenna!" But upon further investigation I found that it just wasn't tuning.

I have a few theories, and was hoping those of you with more experience could help me narrow down the most likely culprits...

- (1) The antenna is fine, but MFJ/Vectronics antenna tuners are not able to handle a load such as this loop
- (2) Since the thing does go through the trees, and the trees were wet yesterday, the resulting affect on the antenna was that it couldn't be tuned.
- (3) The 10' side is too low to the ground for the thing to tune
- (4) The wood mast, although dry, is lossy and is somehow making me unable to tune the antenna

Any thoughts? Suggestions? Help!

Joel NF9K

Date: Fri, 15 Aug 1997 08:51:08 -0400 (EDT)
From: Vincent Ferme <an327@freenet.toronto.on.ca>
To: William R Colbert <af852@rgfn.epcc.Edu>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [24933] Re: longwave info
Message-ID: <Pine.3.89.9708150831.A24947-01000000@queen>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hello,

The LowFer/MedFer Scrapbook is still available through Ken's estate. The address to order it is the same as before, it's on the LWCA page. If unable to access the web, let me know by private e-mail, and I will send you the address.

I received my copy a couple of weeks ago and strongly recommend it!!

Vince, VE3VFN.

On Thu, 14 Aug 1997, William R Colbert wrote:

> Also one of the pre-eminent lowfers - Ken cornell, W2IMB wrote
> much of the info about that band, also published a looseleaf type
> ooops type handbook with info on antennas, receiver equipment,
> transmitters, rules and regulations, became a SK within the past
> 2 or 3 months.

Date: Fri, 15 Aug 1997 06:32:46 -0700
From: Jerry Parker <jparker@fix.net>
To: qrp-l@Lehigh.EDU
Subject: [24934] 1750 Meters and VLF
Message-ID: <2.2.32.19970815133246.00c78518@fix.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Following the thread on 1750 and VLF?

There is allot of information available via the Curry Communications Page.

Check it out. It includes links to the Long Wave Club of America and much more.

<http://www.fix.net/~jparker/currycom.htm>

Enjoy,,,Jerry...WA6OWR...K

Date: Fri, 15 Aug 1997 08:36:14 -0500
From: Brian Cieslak <brianc@ams-i.com>
To: "'QRP-L'" <qrp-l@Lehigh.EDU>
Subject: [24935] Re:K5F0 /7
Message-ID: <c=US%a=_%p=Adaptive_Micro_S%l=AMS-I_SERVER_-970815133614Z-2809@ams-i-server-1.ams-i.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

Another role model bites the dust....Chuck has proven to be fallable...what are we to do...oh woe oh woe...only Doug Hendricks and Paul Harden remain unspoiled.

Brian AE9K

Date: Fri, 15 Aug 1997 06:50:08 -0800
From: Mike AB7RU <mparkes@worldnet.att.net>
To: qrp-l@Lehigh.EDU
Subject: [24936] Anyone built Dan's QRP Tuner?
Message-ID: <v03020909b01a1cdb1be8@[207.147.131.188]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Just wondering if anyone has had any experience with Dan's Small Parts Tuner? Thinking of getting one.
73 Mike AB7RU

Date: Fri, 15 Aug 1997 09:52:46 -0400
From: Zack Lau <zlau@arrl.org>
To: qrp-l@Lehigh.EDU
Subject: [24937] Re: K5F0/7
Message-ID: <33F45F2E.770F@arrl.org>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Michael wrote:

>

> I don't know about a few years back, but the 1997 ARRL Handbook lists
> the ARRL-Recommended 12-V Power Connector as the Molex 1545, 2 pin,
> 8 amp connector, with positive on the point side.
> This connector is available at RS as part #274-222.
>
> This is directly from the 1997 Handbook page 22.6.
>
> Where did/does the ARRL recommend a 4 pin molex??
> I don't know either, but in August 1993 QST p. 50 we
published the "standard" that appears in the current Handbook.

While I haven't recommended it before, I've found that a 4 pin
Molex does make some sense for 24 volt power connections. I use
them on my 9W 2304 amplifier.

The two extra pins are handy for jumpering together two 12 volt
batteries. Also, it is a bit of a challenge to fit the 4 pin
plug inside a 2 pin socket to blow up a radio, though I wouldn't
underestimate the truly incompetent.--Zack Lau W1VT

Date: Fri, 15 Aug 1997 14:10:05 +0000
From: SEAB&SHARON LYON <SSLYON@worldnet.att.net>
To: JFKluender@aol.com, qrp-l@Lehigh.EDU
Subject: [24938] Re: Antenna troubleshooting help needed
Message-ID: <19970815141003.AAA11414@LOCALNAME>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Good LOGIC, but poor dielectric! The 2X4 is acting as VERY lossy
insulation between the conductors. Make or buy some good ladder-
line and space it at least 3" off the wood. You'll be very happy
with the loop on higher frequencies, but 80m won't be inspiring
until you get closer to 1/2-wave altitude. Good Luck! =s=

.....
At 12:31 PM 8/15/97 +0000, you wrote:

>Fellow qrp-l'ers,

>

> I just put up an 80 M horizontal loop, as described on numerous
>occasions by different people on this list. I was getting really excited
>about getting on the air, and then...

> To all appearances, the thing looks fine. It is adequately supported at

>

"Seab" Lyon -- AA1MY
Bethel, CT; USA FN-31-HJ
ARCI #9253; QRP-L # 574
NEQRP# 511; ARRL; QCWA;
C.A.R.A.

Date: Fri, 15 Aug 97 10:10:00 EST
From: "Pat A. Taber" <pat@vtpo1.genrad.com>
To: "'qrp-l@lehigh.edu'" <qrp-l@Lehigh.EDU>
Subject: [24939] RE: Anyone built Dan's QRP Tuner?
Message-ID: <33F42CDB@msgate>

>Just wondering if anyone has had any experience with Dan's Small Parts
>Tuner? Thinking of getting one.

I suppose it depends on which small part you were planning to tune. I
find that if you try to tune a glass diode much above G it snaps in
half....

>>>==>PStJTT

Date: Fri, 15 Aug 1997 10:42:45 -0400
From: Paul Cereste <cereste@myapc.com>
To: qrp-l@Lehigh.EDU
Subject: [24940] 38 spl 5W mod oscillating?
Message-ID: <s3f432bb.000@myapc.com>

Well, I finally got done with the 38 spl with
the 5W mod (modified per M. G.
instructions). It receives when the antenna
is connected, but on transmit I have a
problem.

It tunes up OK into a dummy load. I listen
to it on a Yaesu FT-890. It sounds clean,
and the sidetone is good.

I don't have a resonant antenna for 30, so I use the Yaesu to tune a 20 meter Half square to 30 M with a MFJ 941E tuner, then I disconnect the Yaesu and substitute the 38 spl.

When I key it, the sidetone sounds like a buzz (sidetone is normal when on dummy load). By tweaking on the tuner's controls, I can get it to have an almost normal sidetone when code is being sent, but degrades into a buzz during key down for more that about a second.

Power output (per the MFJ dual needle meter) is about 15 W (!) when the thing is buzzing. I think what is happening is the final is oscillating. Power is around 4 or 5 W when it has the normal sidetone.

Should I stop whatever I'm doing until I have a resonant antenna? My indicated SWR when I have the tuner tuned is 1.8:1. Is this enough to cause the problem I'm seeing? (apparently it is)

No smoke has leaked out yet.

Am I overlooking something obvious?
Have others observed similar problems?

Since I'm pretty sure I know what's happening, I'm really asking if my rig is "normal," or should I be doing something to introduce more stability, or should I stop using the Yaesu receiver as a tuning aid and go find a 'scope?

I don't have test equipment other than a cheap multimeter.

73, Paul K1CGZ

Date: Fri, 15 Aug 1997 09:57:06 -0500

From: "j.w. thornton" <dub@oklahoma.net>
To: qrp-1@Lehigh.EDU
Subject: [24941] Re: CW operating procedures (more)
Message-ID: <3.0.3.32.19970815095706.00e5c67c@oklahoma.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 09:09 PM 8/14/97 +0000, you wrote:

> Hello gang,
>
> As a long time amateur and QRPer (at times), I find most of the
>group has fairly
>decent operating practices. I do have one BIG gripe:
> I call : CQ CQ CQ DE W5TVW W5TVW W5TVW K
> And someone one or near the frequency sends: WA2ABC.....
> Is he calling me? Is he testing? Does he want my

Hey Gang: The 3 X 3 call for CQ is a longtime established procedure, and I certainly find no fault with it. I do however prefer a 2 X 2 call, as it allows one to move along a bit better. One thing that is heard quite frequently is the CQ CQ CQ CQ CQ CQ CQ de WA???? WA???? WA???? with this same sequence repeated several times, for 5 minutes or more, does not have QSK, and does not pause to see if anybody is answering the CQ. If there IS anybody answering, it certainly will not be me, as I have long since gone on to greener pastures. When answering a CQ, I feel that a 1 X 2 call is just right. I should be able to zero beat a station close enough that I am well within his passband, thus he should be able to recognize his call sent one time, and my call twice should be quite adequate. Just dont vary greatly from the established standards. Another courtesy to the operator you are calling, if you are running high speed CW (above 40WPM, & I do not think this the norm if you are asking about operating procedures), it will help the other station to pick up your call if you will slow down the call ONLY somewhat. I normally will put a space between each character of my call, with 2 or 3 spaces between the calls, as that is much easier than slowing down a keyboard for the call only, and is almost as effective.

One more way of doing things. There is always SOME room for leeway, just dont stray too from the norm. "72"

Dub WA5YFY
J. W. (Dub) Thornton
QRP-1 # 159
ARCI #6982
NW QRP # 427
Minco, Okla. 73059

Date: Fri, 15 Aug 1997 16:20:01 +0100
From: adams@chuck.dallas.sgi.com (Chuck Adams)
To: dub@oklahoma.net
Cc: qrp-1@Lehigh.EDU
Subject: [24942] Re: CW operating procedures (more)
Message-ID: <199708151520.QAA23798@chuck.dallas.sgi.com>

Dub et.al.,

Let me throw in one more item to the data being presented
as this happened on 30M last night.

A station was calling CQ for a long period of time. Well you know
what, he got what he wanted ---- a pileup. There must have been
at least 10 stations calling him.

I have the CMOS III programmed with a 3x3 CQ, so I don't have the
problem of pileups and at QRPP levels I don't ever expect to either
except maybe during a foxhunt in the winter time.

: -)

I know for a fact that Dub has no problems with calls at high speeds.
: -) ; -)

..

Chuck Adams K5FO CP-60 adams@sgi.com
<http://reality.sgi.com/adams/index.html>
K5FO's online Morse Code course --- see the home page
WIMPS: Qs=060 30m=55 17m=5 12m=0 States=28/05/00 DX=04/00/00 QSLs=025

Date: Fri, 15 Aug 1997 08:18:45 -0700
From: w7rfm@juno.com (John E Hirsch)
To: "Low Power Amature Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [24943] Flight of Bumblebee #42
Message-ID: <19970815.081849.2750.0.w7rfm@juno.com>

Hi gang

I went out on the last outing but didn't make my destination. We had a
bad fall and I lost my rig , HW-8, over the edge.

I will be going out again this week end to a place up in the mountains

that will not be as hard to get to. I hope to start operating tonight around 0200 or there about.
I will be using my 49'er so do not know if it will get out or not. I will be on the east side of the Cascade Mt. range.

Hope to hear you buzzzzzzzzzzing around.

Your friendly Bumblebeeeeeeeee #42

W7RFM/BB John

Date: Fri, 15 Aug 97 11:30:00 EST
From: "Pat A. Taber" <pat@vtpo1.genrad.com>
To: "'qrp-1@lehigh.edu'" <qrp-1@Lehigh.EDU>
Subject: [24944] RE: CW operating procedures (more)
Message-ID: <33F43E44@msgate>

>greatly from the established standards. Another courtesy to the operator
>you are calling, if you are running high speed CW (above 40WPM, & I do not
>think this the norm if you are asking about operating procedures), it will
>help the other station to pick up your call if you will slow down the call
>ONLY somewhat.

I think it's a good idea at any speed, though I'd settle for people just not SPEEDING UP when they send their call. I know they know what their call is and it's tedious (to them) to send it, but generally I'm hearing it for the first time and it's not something where you can miss a letter or two and pick it up from context. ;-)

What I hear a lot is my call sent slow (thanks, but I know it already) because it's new to them and their call sent 20% faster than anything else. Even if I can copy at the faster speed, my ear is "set" by what is sent first, it takes a beat for me to adjust.

>>>==>PStJTT (KC1TD)

Date: Fri, 15 Aug 1997 08:33:37 -0700 (PDT)

From: Monte Stark <ku7y@sage.dri.edu>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [24945] Re: CW operating procedures (more)
Message-ID: <Pine.SUN.3.90.970815082450.19536B-100000@vortex>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi All,

Just gotta throw my 2 cents in.....

I like a 3 X 2 cq. Then listen for a bit. Repeat as needed.

When replying, I do whatever feels right at the time.

If the station sending cq "sounds" like a new operator to me,
I will send his call once and mine twice, being sure to be sending
at the other stations speed.

If the station sending cq is someone I know to be a "good" cw op,
I will often just send my call once, again at his speed.

Another thing I will do is to send some dits to stop the other
op while they are calling cq. When they pause I send my call and
we start the qso.

Any serious CW operator should be using qsk or at least semi qsk.
Don't wait until someone is done with their cq to try getting their
attention. Send a few dits to let them know you are there and that
you already know who is calling.

When you are calling cq and you hear a single call and don't know if
they are calling you or someone else, just send a quick question
mark. If they repeat their call, it's you they are after!

Short calls serve the same purpose that abbreviations do.....save time
and get more info exchanged with less effort.

(Have you noticed that you can always tell someone who is using a
keyboard/computer for cw because they are the about the only ones
that send a period!)

OK, back into the hole....cul,

73, Ron, SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....
....ku7y@sage.dri.edu.....Washoe Lake, Nevada.....

....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

Date: 15 Aug 97 12:03:23 EDT
From: "Brian L. Lewis" <76500.1621@CompuServe.COM>
To: QRP-L <qrp-l@Lehigh.EDU>
Subject: [24946] 50/40/30 Louisiana Tues Night
Message-ID: <970815160323_76500.1621_HHE48-1@CompuServe.COM>

Hello All,

I will be on Tuesday night, August 19 (local date) from Shreveport, La.

7 pm - 8 pm Central Time (0000Z-0100Z UTC WED, AUG 20) at 10.115 +/-

8 pm - 10 pm Central Time (0100Z-0300Z UTC WED, AUG 20) at 7.043 +/-

I will call CQ WAS QRP de K5RV.

Exchange is CALLSIGN, RST, State/Prov./Country, NAME and POWER

Looking forward to working you.

Brian Lewis
K5RV

Date: 15 Aug 1997 12:07:21 -0400
From: Glen Leinweber <leinwebe@mcmail.CIS.McMaster.CA>
To: qrp-l;;
Subject: [24947] xtal modelling, 38s
Message-ID: <1997Aug15.120721-0400@[130.113.234.7]>

Gang,

Measured NORCAL's 12 Mhz xtals included with the
38s kit some time ago.

Read thru Wes Hayward's QST article on ladder-filter
design, and his method of crystal characterization.

Be forewarned that all the equations in the article are
very specific to his measurement circuit. I'd say this wasn't
made clear in the article. Use a different test-bed circuit?...
then come up with your own equations for Q, series inductance

and series capacitance.

Wes's setup may introduce errors for very good crystals, since his source and load impedances are rather high. Standard test-beds use resistive pads to lower the drive and load impedances to much less than 50 ohms.

Anyway, I thought NORCAL's little 12 Mhz crystals weren't bad at all, better than all others in my junkbox (hey, whatdoyouexpect from cheap microprocessor xtals?):

Ls = .01615 henries

Cs = 1.08977751 e-14 farads

Cp = 2.4 pf

Rs = 15 ohms

This gives a Qs of about 81,000. Ori's 38s design is pushing these crystals to the limit - its tough to get CW-type selectivity without excessive loss, unless the crystal is very good.

Looking forward to see what Jim Kortge has come up with in modifying the 38s for 17 meters. Could be a real winner.

Glen VE3DNL leinwebe@mcmail.mcmaster.ca

Date: Fri, 15 Aug 1997 10:13:31 +0000
From: "Marshall Emm" <mgemm@mtechnologies.com>
To: qrp-l@Lehigh.EDU
Subject: [24948] Key Images
Message-ID: <199708151614.KAA13262@bobcat.sni.net>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT

For the benefit of anyone who is interested [g], I've added a couple more key images-- my J45 and a PMG key-- to the web page:

I think I said before you should go to

<http://www.mtechnologies.com/mthome>, then look for the n1fn link at the bottom of the page, but you can also go direct to

<http://xanadu.chisp.net/users/n1fn>

73

Marshall Emm

N1FN/VK5FN

n1fn@mtechnologies.com

<http://www.mtechnologies.com/mthome>

(303)752-3382

--

Date: Fri, 15 Aug 1997 09:30:46 -0700 (MST)
From: Bob Hightower <ki7mn@dancris.com>
To: qrp-1@Lehigh.EDU
Subject: [24949] CW Operating Procedures
Message-ID: <199708151630.JAA04393@dancris.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

As a not too frequent op, and not too proficient at that, I prefer to respond to a CQ with the sender's call one time, then mine twice, providing condx are good. If bad, then I'll send the calls twice or more, but not more than 3 times.

When I call CQ (infrequently), I am listening for my call to come back from someone, thus I expect to hear it at least once, followed by (hopefully) the caller's call sent twice.

If I don't hear my call coming back, I'm not really sure if the station I hear is answering me, or someone else. For the same reason, I will send the CQ caller's call once, to alert him/her that I'm responding to their call, and then mine twice.

Date: Fri, 15 Aug 1997 10:27:35 -0700
From: Ed Loranger <we6w@qsl.net>
To: w7rfm@juno.com
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [24950] Re: Flight of Bumblebee #42
Message-ID: <33F49187.346C@qsl.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hmmmmmm, If I recall, you were having offset problems with the HW-8 earlier this year.....

Accident? I think not.

QRP Abuse, that's what it is.

Poor Defenseless HW-8, pushed over the edge.

Hi! (Couldn't resist)

-Ed L.

--

72/73 de we6w qrp es cw ONLY (From non-ham to extra in one day!)

HW-8;OHR-100, Pixie2, Johnson Viking II w/VFO.

QRP-L#1068/Norcal#2227/ARS#275/ARCI#9397 grid CM88ok

mailto:we6w@qsl.net <http://www.qsl.net/we6w>

Date: Fri, 15 Aug 97 05:22:03 -0500

From: Larry Trullinger <kb0emb@swbell.net>

To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>

Subject: [24951] Bright LED and a use

Message-ID: <199708151017.FAA15705@SWBELL.net>

-- [From: Larry Trullinger * EMC.Ver #2.5.02] --

Hi Gang,

I use pretty bright red LED, that comes from Radio Shack P/N 276-086A. The brightness is 5000 mcd, far brighter than the standard LED. I use them for backpacking night lights, works FB where it gets really dark and it is light weight.

Just use 2 'AA' alkalines with a 33 ohm resistor, current in mine is just under 20 ma. The forward voltage is max spec'd @ 2.4v so if you use a different LED then the resistor will need to be larger (value). Depending on whose battery specs you use, the life is from ~60 - 90 hours.

I epoxy the LED to an alligator clip and run about 4' wire to a battery pack w/resistor cut into one leg of 2 conductor wire and heat shrink, don't even need or want an on/off switch. Works great for me, definitely not bright but you will keep your night vision when using it. Jim this reply probably better than what I sent you direct, have had my coffee now =;-)

72/73 Larry KB0EMB

Date: Fri, 15 Aug 1997 13:15:32 -0700

From: Ed Loranger <we6w@qsl.net>

To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [24952] W1AW Receiver
Message-ID: <33F4B8E4.FB3@qsl.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Finished it last night. Works barely. I made the coil assembly on 3/4 inch PVC and added a few turns. Probably not enough turns. I'm going to resonate out the coil tonight and actually peak it up cause it don't hear much.

Anyone else built the W1AW Receiver in June QST?

Wondering if it needs a fix or two. Audio is really weak. But much better for CW reception than the Barn-door Wide input Bandwidth of my Pixie2. But the Pixie2 hears much better, probably 26 dB over the regen. rcvr.

I'll make it squeal tonight.
-Ed ,es always homebrewing!

--

72/73 de we6w qrp es cw ONLY (From non-ham to extra in one day!)
HW-8;OHR-100, Pixie2, Johnson Viking II w/VFO.
QRP-L#1068/Norcal#2227/ARS#275/ARCI#9397 grid CM88ok
mailto:we6w@qsl.net <http://www.qsl.net/we6w>

Date: Fri, 15 Aug 1997 13:37:21 -0700 (MST)
From: Chris Trask <ctrask@primenet.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [24953] Lenk's "Handbook of Simplified Solid-State Circuit Design"
Message-ID: <Pine.BSI.3.96.970815133036.1512A-100000@usr04.primenet.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Since there was an earlier discussion regarding this book, I thought I might post the following source:

=====

Hoffman Research Services

PO Box 342
Rillton, PA 15678
Phone (412) 446-3374
Email hoffsrch@westol.com

Lenk, John D. HANDBOOK OF SIMPLIFIED SOLID-STATE CIRCUIT DESIGN.
Englewood Cliffs, NJ: Prentice-Hall, c.1971 First edition. Indexed.

Text is fine. Some exterior wear. Good, tight. US\$ 15.00.

Terms: VISA, MasterCard & American Express accepted. For check or money orders, e-mail or telephone reservation of books is encouraged - we'll then hold your title(s) for 10 days pending receipt of payment. Shipping charges are \$5 per volume for USPS Priority Mail, \$3 for Book Rate, in the United States

=====

I gotta go.

Regards,

Chris

Date: Fri, 15 Aug 1997 14:01:39 -0700
From: gsurrency@juno.com (Gary L L Surrency)
To: cereste@myapc.com
Cc: qrp-1@Lehigh.EDU
Subject: [24954] Re: 38 spl 5W mod oscillating?
Message-ID: <19970815.140702.3414.1.gsurrency@juno.com>

Paul,

Make sure you have a 330pf cap at C25 and C26. This makes the tuning of TC2 much less critical, and allows the 74HC240 to be driven with a less harmonic content from TR1 and the mixer stage. In fact, you might even reduce C25 to less than 300pf and see if it is more stable. I've had a little as 30pf in mine and it still worked OK. The octal buffer chip doesn't seem to need a lot of drive. Be sure to have 2 peaks of TC2 or change the numbers of turns of L2.

Have you bypassed the cathode of D6 with a 0.1uf cap? This is essential

for stability. Try some other brands of chips for the 74HC240. I found some were beter than others. And be sure to use short leads for the interconnections and RF output connector.

You should try to reduce the SWR as much as possible, as this does contribute to better overall stability. Mine will still "take off" if I don't tweak the antenna tuner to the least SWR. Careful tweaking of TC2 should reduce the tendency for parasitic oscillations to a minimum. I suspect the PIN diode mod by Mike Gipe might also help keep RF feedback out of the receiver input and first mixer, U1.

Mine seemed to settle down quite a bit when I put it into a chassis and mounted the PA to the rear panel. Perhaps the added capacitance between the power tab and the metal panel made the IRF510 less finicky to antenna mismatches. Mike Gipe mentioned that a capacitor at the places marked "ZD101" helped to "clean up the residual VHF stuff either by reducing the gain at these frequencies or by swamping the non-linear gate capacitance of the FET". Might be worth a try.

It also helps to optimize the output network so that the PA is matched as well as possible and doesn't react with such misbehavior when the load is not ideal. I have 560-1000-560 pf of capacitance in mine with L3 at 11 turns and L4 at 12 turns. Spread and compress the turns on these toroids for best and cleanest output.

72 and good luck,

AB7MY

Gary Surrency

Chandler, AZ (Near Phoenix), QRP-L #571, AZ ScQRPions, ARRL VE

Date: Fri, 15 Aug 1997 14:24:39 -0700
From: Ed Loranger <we6w@qsl.net>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [24955] Book:RF Power Design Techniques
Message-ID: <33F4C917.6281@qsl.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Ok, The 'Handbook of Simplified circuit Design' usually occupies my right arm. But what do I carry in the left?

Along with my portable rig:
"Practical RF Power Design Techniques"

Irving M. Gottlieb, Tab Books, (c) 1993 First Printing 1st Ed.

ISBN 0-8306-4130-0(Hardback) ISBN 0-8306-4129-7 (Paperback.

Library TK7881.15.G72 and 621.381'044--dc20 92-5599

I had not realize how old (but Valuable) the 'Secrets'
book was and apologize if it has been difficult to find.

This book should be a no-brainer to find.

Borrow it if you can, I'm not here to sell for these
folks. But this book emphasized effecieny, which
really plays in QRP design.

Contents (As brief as I can get)

1. Transistors versus tubes. -----	1-42
2. The bipolar transistor in RF power applications ----	47-69
3. The FET in RF power applications -----	75-98
4. Impedance-matching networks (Lots of stuff) -----	101-150
5. Applications of transmission-line elements to RF power circuitry -----	153-187
6. Low power applications -----	191-212
7. Medium-and high-power applications -----	215-240
8. Standing-wave ratio and related controversies -----	241-278

This is a keeper and belongs in the active-reading pile!
Excellent impedance matching tables for quick results.
This is a "practical" book that includes projects.

The approach is "Let's design and build this"

With step by step instructions in most cases.

There is a schematic on nearly every page. Lots of
helpful charts and curves.

check it out, should be at the library.

-Ed Loranger

--

72/73 de we6w qrp es cw ONLY (From non-ham to extra in one day!)
HW-8;OHR-100, Pixie2, Johnson Viking II w/VFO.
QRP-L#1068/Norcal#2227/ARS#275/ARCI#9397 grid CM88ok
mailto:we6w@qsl.net <http://www.qsl.net/we6w>

Date: Fri, 15 Aug 1997 18:37:44 -0400
From: "Jim Kortge, K8IQY" <jokortge@mci2000.com>
To: Paul Erickson <paul1@wizard.ucs.sfu.ca>
Cc: qrp-l@Lehigh.EDU
Subject: [24956] Re: 38 Special filter info
Message-ID: <3.0.1.16.19970815183744.2c6f0018@mail-cluster.pcy.mci.net>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii

At 06:18 PM 8/14/97 -0700, Paul, VE7CQK wrote:

>Hi Jim,

>

>Thanks very very much. I was wondering what values you used for the
>output filter on the 17s?

>

>cheers, Paul

>VE7CQK

>email: paul1@wizard.ucs.sfu.ca

>

>

Just happen to have that info handy Paul. Both end caps are 180pF,
middle cap is 330pF, and the two inductors are 0.6uH each. I used
9 turns of wire on a FT37-2 for them. That's fewer turns than the
formula predicts, and I had to take off 3 turns, if I remember correctly,
to get the inductance I wanted.

The rig is working quite well, but I finally threw in the towel on
getting it to run in full QSK mode with tolerable thump. Tried
every idea I could, and it was always there, and really loud. So
it now works in semi-breakin mode, and sounds terrific!

The 2 pole crystal filter works fine! Single signal all the way.

72 and kind regards.....Jim

Jim Kortge, K8IQY (ex NU8N)		NorCal, QRP-L
jokortge@mci2000.com		__o H.F. bicycle mobile
Fenton, MI		_`<, Mizuho 17/40 SSB
...		(*)/(*)
NorCal 38S/30 Log	-	34 States; 40 Countries - Running 3 watts
Most recent -		Iowa Mauritius
NorCal 38S/17 Log	-	3 States; 2 Countries - Running 2 watts
Most recent -		New Jersey St. Martin

End of QRP-L Digest 819
